## INVESTIGATOR'S ANNUAL REPORT

## **National Park Service**

All or some of the information provided may be available to the public

Reporting Year: 1994	Park: Shenandoah NP
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No co-investigators	
Permit#:	
SHEN1994AJLM	
Park-assigned Study Id. #: unknown	
Project Title:	
Aquatic Macroinvertebrate Monitoring	
Permit Start Date: Jan 01, 1998	Permit Expiration Date Jan 01, 1998
Study Start Date: Jan 01, 1994	Study End Date Jan 01, 1994
Study Status: Completed	
Activity Type: Other	
Subject/Discipline:	
Ecology (Aquatic, Marine, Terrestrial)	
Objectives:  1. Establish a baseline inventory of the aquatic macroinvertebrates and their habitats within the Park.; 2. Continue long-term monitoring of aquatic	
macroinvertebrates and their habitat relationships to detect trend information and changes in stream status useful to management.	
Findings and Status:	
The analytical report on the subset of our dataset from 1988 through 1992 yielded very positive results. State-of-the-art ecological methods, emphasizing multivariate analyses and graphical data exploration techniques, were used to classify/compare sites and summarize the information and	
trends within the dataset. Among the most important conclusions were that:;1) Our current protocol does indeed provide data useful for status and trend	
information;;2) Both upstream/downstream and spring/fall paired samples showed differences which represented expected community-level phenomena (i.e., the data clearly illustrate biologically meaningful patterns);;3) Streams within the Hampton-Erwin geological formation had distinctly different	
macroinvertebrate communities than other sampled geologic types (Pedlar and Catoctin) within the Parka landscape-level pattern consistent with data from other projects (stream chemistry, botanical distributions).;Recommendations from the report were related to specific questions we posed for the	
analysis, and fully supported several planned changes to the sampling regimeas outlined in our plans for next year.	
For this study, were one or more specimens collected and removed from the park but not destroyed during analyses?	
Funding provided this reporting year by NPS:	Funding provided this reporting year by other sources:
13191	0
Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college	
Full name of college or university:	Annual funding provided by NPS to university or college this reporting year:

n/a 0